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EXAMINER	
FRINK, JOHN MOORE	
ART UNIT	**PAPER NUMBER**
2142	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/976,540	GRABARNIK ET AL.	
	Examiner	Art Unit	
	John M. Frink	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1 – 3, 7 – 9, and 13 - 18 are rejected under 35 U.S.C. 102(a) as being anticipated by Cookmeyer et al. (US 6,529,954 B1), hereafter Cookmeyer.

3. Regarding claims 1, 7, 13, 15 and 17, Cookmeyer shows an apparatus, a computer-based method, an article of manufacture and an event management support system for providing decision support to an analyst in accordance with an event management system (Abstract) which manages a network with one or more computing devices (Figs. 2 and 7), the apparatus comprising

at least one processor operative to perform: (i) an automated offline analysis of data representing past events associated with the network of computing devices being managed by the event management system (Figs. 8 and 28 and col. 21 lines 44 - 55, where the data source is a locally held log of network events, stored on a 'C:' local hard drive, and where the 'analyzer' is a local, non-network device connected to the host machine over a local bus (col. 7 lines 18-22), thus containing no 'online' activity/analysis), the automated analysis comprising generation of one or visualizations of one or more portions of the past even data and discovery of one or more patterns in the past even data (Figs. 8, 18, 21-23 and 28, and col. 22 line 61 - col. 23 line 7); and

(ii) automated rule offline management comprising construction and validation of one or more rules (col. 12 lines 33-67 and col. 13 lines 3-20; where rule creation/customization is done on the host machine and where executed code is 'downloaded' from the host to the analyzer (col. 8 lines 25-30) as an offline operation as this 'download' is over a local parallel bus (col. 7 lines 20-25 and Fig. 2, where item 26=host, item 27=parallel cabel and item 28=analyzer) formed in accordance with the automated offline analysis of the past even data (col. 21 lines 44-55 and Fig. 14), wherein one or more rules are constructed offline and validated offline based directly on at least a portion of the one or more visualizations generated offline (col. 1 lines 50-67 and col. 22 lines 13-33; where rules can be created and constructed by users) from the corresponding offline analysis of the one or more portions of the past even data and the offline discovery of at least a portion of the one or more patterns in the past event data (col. 13 line 5 - col. 14 line 20 and col. 12 lines 28-30); and

memory, coupled to at least the one processor, which stores at least a portion of results associated with the automated offline event analysis and offline rule management operations (col. 26 lines 36-44 and col. 10 lines 26-28).

4. Regarding claims 2, 8, 14, 16 and 18, Cookmeyer further shows wherein past event data is obtained from an event database and the one or more rules are provided to a rule database, the even database and the rule database being associated with an execution system of the event management system (col. 25 lines 37-43).

5. Regarding claims 3 and 9, Cookmeyer further shows selecting a subset of the past even data from the event database, generating a visualization of the subset of past

even data using a visualization tool, the analyst reviewing the visualization to determine whether there are any groupings of events that are of interest presented therein, and performing an appropriate action where an event grouping of interest is found (col. 22 line 61 – col. 23 line 7, col. 23 lines 40 - 60, and col. 24 lines 44 - 64).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 4 – 6, 10 – 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cookmeyer in view of Ma et al. (Mining Event Data for Actionable Patterns, 2000), hereafter Ma.

8. Regarding claims 4 and 10, Cookmeyer shows selecting a subset of the past event data from the event database (col. 22 line 61 – 23 line 7 and col. 24 lines 44 - 64), generating a visualization of the one or more patterns using a visualization tool (col. 22 lines 50 - 63 and col. 24 lines 44 - 64), the analyst reviewing the visualization to determine whether there are any patterns of interest presented therein (col. 22 lines 50 - 63 and col. 24 lines 44 - 64), and performing an appropriate action where a pattern of interest is found (col. 24 lines 44 – 64).

Cookmeyer does not show mining a subset of the past even data to discover one or more patterns using a mining tool.

Ma shows mining a subset of the past even data to discover one or more

patterns using a mining tool (pg. 4 section 2, algorithm 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Cookmeyer with that of Ma in order to improve the ability to identify patterns in enterprise event management (Ma, pg. 3, bottom right), thus improving the ability of Cookmeyer's disclosure to identify, diagnose and give advice to solve problems (as Cookmeyer's ability to identify and provide solutions to problems is based on identifying patterns).

9. Regarding claims 5 and 11, Cookmeyer in view of Ma further show selecting a subset of the past event data from the event database (Ma, pg. 4, paragraphs 3 and 4), finding one or more instances of patterns expressed in terms of left-hand side rules (Ma, pg. 2, paragraphs 2 and 3), generating a visualization of the one or more pattern instances using a visualization tool (Ma, pg. 2, paragraphs 3 and 4), analyzing the left-hand side rules using a rule validation tool (Ma, pg. 1, Fig. 1), displaying the results of the analysis operation (Ma, Fig. 3), the analyst assessing the analysis results (Ma, pg. 3, 1st paragraph) and making the rules as one of validated and not validated based on the assessment of the analyst (Ma, pg. 9, Fig. 6).

10. Regarding claims 6 and 12, Cookmeyer in view of Ma further show selecting a subset of the past event data from the event database (Ma, pg. 6, paragraph 2), mining the subset of the past event data to discover the one or more patterns using a mining tool (Ma, pg. 6 paragraph 3), assessing significance of the one or more patterns using a visualization tool (Ma, pg. 2, paragraph 3 and pg. 3 paragraph 2), constructing the one or more rules from a selected subset of the one or patterns using a rule construction

tool (Ma, pg. 3, paragraph 3), and writing the one or more rules in a rule database (Ma, Fig. 1 and pg. 2 paragraph 2).

11. Regarding claim 19, Cookmeyer in view of Ma further show an event management decision support system for providing decision support to an event management system which manages a network with one or more computing devices (Cookmeyer, Abstract, Figs. 2 and 4, and Ma, Fig. 1), the system comprising:

an event analysis module, further comprising an event mining module (Ma, Fig. 1) and an event visualization module (Cookmeyer col. 21 lines 44-55 and Figs. 8 and 28) wherein the event module discovers patterns in event data, and wherein the event visualization module provides a mechanism for visualizing at least a result of a pattern discovery and rule analysis (Ma, pg. 8 and Cookmeyer Figs. 8, 18, 21-23 and 28, col. 22 line 61 - col. 23 line 7); and

a rule management module, further comprising a rule validation module and a rule construction module (Cookmeyer col. 12 lines 33 – 67 and col. 14 lines 3 - 20), wherein the rule validation module maintains consistency of at least a rule with the even data, and wherein the rule construction module provides a mechanism for constructing one or more rules based on event patterns mined by the event mining module (Cookmeyer, col. 13 line 5 - col. 14 line 20 and col. 12 lines 28 - 30 and Ma, Fig. 1),

wherein one or more of the rules are constructed offline by the rule construction module and validated offline by the rule validation module based directly on at least a portion of the one or more visualizations generated offline by the event visualization module from the corresponding offline analysis of the one or more portions of the event

data and the offline discovery of at least a portion of the one or more patterns in the event data by the event mining module (Ma, pg. 2 paragraph 3 and 4, pg. 3 paragraph 3 and Cookmeyer col. 12 lines 50 – 67 and col. 22 lines 13 - 33).

Response to Arguments

12. Applicant's arguments filed 10/12/2007 have been fully considered but they are not persuasive.

13. Applicant essentially argues that Cookmeyer does not show where the operation of the entire apparatus of claim 1 can be operated completely offline. However, there is no aspect of Cookmeyer's disclosure that requires online activity. That the entire operation of claim 1 is explicitly disclosed by Cookmeyer as being able to be performed offline. The Applicant seems to be indicating that the 'offline' reference of col. 21 line 46 is directed to 'expert analysis' rather than said claimed 'automatic data analysis'. However, the use of 'offline' in col. 21, lines 44 – 46 is discussing choosing a 'capture data file' as opposed to performing a 'real time' analysis. The 'real time' analysis referred to by Cookmeyer would correspond to 'online' activity. However, utilizing the 'capture data file' is clearly offline activity. The 'capture data file' (see Fig. 8 and 28) is clearly shown as stored on the local 'C:' hard drive. In a Windows environment, which is utilized by Cookmeyer (col. 7 lines 12 - 20), the 'C:' is used as a reference to the machines local, primary hard drive. The host machine, containing the 'C:' hard drive where the 'capture data file' resides, also communicates with an 'analyzer'. However, this communication is purely offline, as the 'analyzer' is connected to the host machine

over a local parallel bus. Given that the executed code is then run locally, offline, on the host computer (col. 8 lines 25 - 30), all activity performed by the apparatus is performed offline when a 'capture data file' is used. Therefore, Applicant's argument that Cookmeyer does not meet the 'offline' requirements of the pending claims is not persuasive. For further elaboration, please refer to the above rejections of the independent claims, made under 35 USC 102(a) in view of Cookmeyer.

14. Applicant also discusses the language used by Cookmeyer regarding when rules can be defined, specifically that they can be defined at run time. Applicant correlates rules being defined at run time with online activity, and rules being defined at design time with offline activity. This argument is not persuasive, as 'run time' relates to when the application is executed, and has nothing to do with online activity. That Cookmeyer's disclosed application can be modified on the host computer at run time shows that it is flexible and adaptable, but does in no way relate to online activity or activity over a network. The application of Cookmeyer's disclosure runs on the host computer, which communicates with an analyzer. As Fig. 2 illustrates, the host computer (Fig. 2 item 26) communicates over a local data bus via a parallel cable (Fig. 2 item 27) with an analyzer (Fig. 2 item 28). This communication is entirely local, occurring over a local data bus, and is in no way related to online activity. The application's 'run time' is therefore in no way related to being online or online activity.

Online activity, in another embodiment, can be present during run time. However, the embodiment relied on by the Examiner and cited in this office action (col. 21 lines 44 - 55), where the data source is a local capture data file and not live network traffic, does

not involve any online activity.

Applicant's argument therefore is not persuasive.

15. Applicant also argues that Cookmeyer does not disclose utilizing data in the capture file to generate visualizations or to discover patterns, and states that rather Cookmeyer shows utilizing the capture file data to generate 'events' and 'symptoms'. However, Cookmeyer does indeed disclose generating visualizations, clearly shown in Figs. 8, 18, 21-23, as well as discovering patterns (col. 22 line 61 – col. 23 line 7). The events/symptoms that are reported to the user of Cookmeyer's disclosure are a result of Cookmeyer's disclosure analyzing the input data (in this embodiment, said input data is the offline capture data file) to create said visualizations shown in Figs. 8, 18 and 21-23, and the patterns are discovered and noted based on whether rules are satisfied (col. 12 lines 20 - 67). For further elaboration, please refer to the above rejections of the independent claims, made under 35 USC 102(a) in view of Cookmeyer. Applicant's arguments therefore are not persuasive.

16. Applicant's arguments regarding the Tenney reference are moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Frink whose telephone number is (571) 272-9686. The examiner can normally be reached on M-F 7:30AM - 5:00PM EST; off alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571)272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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